



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/749,348

12/31/2003

Laurence Warden

IVGN 491

9885

23358 7590 03/08/2007

INVITROGEN CORPORATION

C/O INTELLEVATE

P.O. BOX 52050

MINNEAPOLIS, MN 55402

EXAMINER

KIM, ELLEN E

ART UNIT

PAPER NUMBER

2874

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|-----------|---------------|
|--|-----------|---------------|

3 MONTHS

03/08/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

|                              |                 |               |  |
|------------------------------|-----------------|---------------|--|
| <b>Office Action Summary</b> | Application No. | Applicant(s)  |  |
|                              | 10/749,348      | WARDEN ET AL. |  |
|                              | Examiner        | Art Unit      |  |
|                              | Ellen Kim       | 2874          |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 February 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 41-48 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/20/07</u> .   | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

This is responsive to Applicant's amendment filed on 2/20/07. Upon reconsideration and review of the references in IDS, all the previous allowability has been withdrawn and the following rejection has been made. Any inconvenience to Applicant is regretted.

***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1-21, and 23-40 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Yuguerabide et al [USPAT 6,214,560].**

Yuguerabide et al disclose a waveguide [fig. 9] comprising

a first optically transmissive material [the bottom layer] that forms an interface with a second optically transmissive material [higher refractive index liquid as cited in column 23, lines 31-32], wherein the refractive index of said second material is greater than or equal to the refractive index of said first material; and

one or more populations of scattered light detectable particles [column 22, line 59- column 23, line 16] of a dimension between about 1 and about 500 nm inclusive that are bound to an analyte, wherein said particles are distributed in said second material such that said particles are illuminated by non-evanescent light and produce detectable scattered light in said waveguide.

In re claims 2-4, 6-10, 13, 16-21, the claimed material characteristics are disclosed in column 22, line 59- column 23, line 16.

In re claim 5, the inherency of the gold metal particle generating the plasmon resonant light scattering is mentioned in column 3, lines 18-26.

In re claim 11, the antigen is disclosed in column 75, line 62.

In re claim 12, the DNA molecule is disclosed in column 72, lines 1-14.

In re claim 14, fig. 11 shows the prism.

In re claim 15, fig. 15B shows sensors as detectors.

In re claim 23, it is clear that the first surface has a smooth surface.

In re method steps, it is clear that the Yuguerabide et al reference inherently show all the claimed method steps, and the claimed structural limitations discussed above in device rejection.

In re claims 37 and 38, a computer and camera are disclosed in column 71, lines 20-21.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over  
Yuguerabide et al.**

Yuguerabide et al disclose every aspect of claimed invention except for the claimed second material.

It would have been obvious to the ordinary skilled person in the art at the time the invention was made to modify to include the claimed second material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

### ***Conclusion***

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

For all official patent application related correspondence for organizations reporting to the Commissioner of Patents:

- Correspondence that is transmitted by facsimile must be directed to the central facsimile number, (703) 872-9306.

Art Unit: 2874

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ellen Kim whose telephone number is (571) 272-2349.

The examiner can normally be reached on Monday through Thursday.

A handwritten signature in black ink, appearing to read 'E. Kim', is positioned above the typed name.

Ellen E. Kim

Primary Examiner

March 4, 2007/EK